

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

WHAT IS CLAIMED IS:

Claim 7. (currently amended): A process for producing electrical energy from thermal energy comprising the steps of:

supplying thermal energy to a heat pipe containing a working fluid and a capillary insert to evaporate the working fluid in a vaporizer section of the heat pipe;

directing the resulting vapor flow through the heat pipe to a condenser section of the heat pipe where the vapor is condensed and the resulting condensate ~~returns~~ returned to the vaporizer section via the capillary insert;

entraining liquid droplets of an electrostatic generator by means of the vapor flow from the vaporizer section of the heat pipe, the electrostatic generator having a liquid working medium to supply the liquid droplets, a solid working medium for ~~charges~~ charge separation, and a pick-up electrode within the condenser section of the heat pipe;

passing the vapor entrained with the liquid droplets by the solid working medium to cause separation of the electrostatic charges between the solid and liquid working media;

displacing of the resulting charged liquid droplets-working medium under the action of ~~external~~ forces caused by the kinetic energy of the molecules of in the vapor flow, wherein the ~~external~~ these vapor flow forces perform work against the Coulomb forces; and

passing the liquid droplets-working medium past the pick-up electrode to pick up electric charges that are mechanically displaced by the ~~external~~ these vapor flow forces against the Coulomb forces to generate electrical energy from the thermal energy.

Claim 8. (original): The process of claim 7, wherein said electrostatic generator also has a first external electrode connected to said solid working medium and a second external electrode connected to said pick-up electrode.

Claim 9. (original): The process of claim 8, wherein the pick-up electrode is a grid.

Claim 10. (original): The process of claim 9, wherein the solid working medium comprises a second grid through which the vapor entrained with liquid droplets passes.

Claim 11. (original): The process of claim 7, wherein a diaphragm of separates the vaporizer section from the condenser section to create an area of maximum flow velocity.

Claim 12. (original): The process of claim 11, wherein the solid working medium is located within the heat pipe substantially at the position of the maximum flow velocity.

Claim 13. (original): The process of claim 7, wherein the liquid droplets are recovered and fall by gravity into a loop return and are returned to be entrained by means of the vapor.

Claim 14. (original): The process of claim 7, wherein the liquid droplets are recovered through a loop return containing a capillary insert and are returned to be retained by means of the vapor.

Claim 15. (original): The process of claim 7, wherein the same liquid is used as the fluid in the heat pipe and as the working liquid medium of the generator.

Claim 16. (original): The process of claim 7, wherein the thermal energy is solar energy.